

PIROGOV, V. ...

Cooling by "mist." ... (MIRA 1983)
... - cooling tools--Cooling)

PIROGOV, K.M.

Heat treatment of parts having key slots. Mashinostroitel'
no.11:13 '65. (MIRA 18:11)

PIROGOV, E.M.

Introducing the MIG-1 machine for wear testing of machine-tool
materials. Izv. tekhn.-ekon.inform.Gos.nauch.-i. sl.inst. mashinost.
tekhn.inform. 1960. 11:14-17 N 165.

(MIRA 19:19)

PIROGOV, L.S.

Method of determination of erythrocytes sedimentation rate in man
with reference to the effect of erythrocytes count. Tr. Vsesoiuz.
obsh. fiziol. no. 1:72-76 1952. (CLML 24:1)

1. Delivered 26 December 1949, Ufa.

1. BERGECV, L. S.
2. USSR (600)
4. Blood - Corpuscles and Platelets
7. Method of determination of erythrocyte sedimentation rate in man with reference to the effect of erythrocyte count. Trudy Vses. otdelch. fiz. khim. i farm. no. 1, 1950.
9. Monthly List of Russian Accessions. Library of Congress, March 1953. Unclassified.

PIROGOV, L.S.

Factors limiting working capacity of the organism in strenuous work. Tr. Vsesoius. obsh. fisiol. no. 1:96-98 1952. (CML 24:1)

1. Delivered 14 December 1950, Ufa.

PIROGOV, L.S.

Erythrocyte sedimentation reaction; method of determination of true erythrocytes sedimentation time in man. Klin. med., Moskva 30 no. 5:61-66 May 1952. (CML 22:3)

1. Doctor Biological Sciences, Professor. 2. Of the Department of Animal Physiology (Head -- Prof. L. S. Pirogov), Bashkir Agricultural Institute, Ufa.

PIROGOV, L.S., professor (Ufa)

Erythrocyte sedimentation reaction. Klin.med. 34 no.4:81-82 Apr '55.
(MLA 6:7)
(Blood--Sedimentation)

PIROGOV, L.S.

Erythrocyte sedimentation reaction. Klin. med., Moskva 31 no.4:81 Apr
1953. (CML 24:4)

1. Professor. 2. Ufa.

PIROGOV, L.S.

TIMCHENKO, N.S. (Ufa); PIROGOV, L.S., professor, saveduyushchiy.

Erythrocyte sedimentation and its relation to the number of erythrocytes.
Klin.med. 31 no.8:51-57 Ag '53. (MLRA 6:11)

1. Kafedra fiziologii zhivotnykh Bashkirskego sel'skokhozyaystvennogo instituta.
(Blood--Sedimentation)
(Blood--Corpuscles and platelets)

CA

The use of peat in the smelting of cast iron in the cupola
furnace. M. P. Pirogov. *Leningrad. Univ. 12, No. 1, 1961*
1961. (Chem. Zentr. 1963, 1, 42). A report of a month-
operation of a cupola furnace using a mix of coke and
peat as fuel. The furnace dimensions were 400 mm and from
mm, distance from floor to tuyère level 400 mm and from
tuyère level to throat 200 mm. Data are given on the
amount of peat added, its moisture content (20-25%) and
its ash content (18-30%). No differences in the temp-
erature of the cast iron were noted whether coke alone was used or
a mix of coke and peat. Difficulties in operation were
encountered when peat of high moisture content was used.
Because of the low S content of the peat (0.15-0.4%), the
use reduced the S content of the cast iron from 0.1 to
0.05-0.08%. The use of peat reduced the expenditure on
ings from 0.6 to 0.1%.

PIROGOV, M.

Observing safety rules in the water. Voen.snan. 29 no.6:16 Je '53.
(Aquatic sports--Safety measures) (MLRA 7:11)

PIROGOV, N.I.

Work practices of the local organization of the Scientific Technological
Society for the Admiralteiskii Plant. Sudostroenie 29 no.7:
81-82 J1 '63. (MIRA 16:9)

1. Predsedatel' soveta Nauchno-tekhnicheskogo obshchestva i glavnyy
inzhener Admiralteyskogo zavoda.
(Leningrad--Shipbuilding)

PIROGOV, Nikolay Dmitriyevich; BILINSKIY, M.Ya., red.; PERSON, M.N., tokhn.
red.

[Masonry] Kamennye raboty. Izd.4, ispr. Moskva, Vses. uchebno-
pedagog. izd-vo Proftekhizdat, 1961. 374 p. (MIRA 14:11)
(Masonry)

88237

11450
113950

S/096/61/000/003/008/012
E194/E155

AUTHOR Pirogov, M S., Engineer
TITLE Heat Transfer to Sodium in the Region of Low Values
of Pekle's Number

PERIODICAL Teploenergetika, 1961, No. 3, pp 62-64

TEXT The little work that has been done on heat transfer during the flow of molten metal in pipes in the region of small values of Pekle's number indicates that the heat-transfer coefficient is very low under these conditions. The Nusselt numbers obtained under laminar flow conditions are several times less than the theoretical value of $Nu = 4.36$. This was because the previous authors calculated the liquid temperature without allowing for axial thermal conductivity. In the present work the sodium temperature was calculated with allowance for axial heat-flow along the tube walls and in the flow of sodium. In a number of the tests it was determined by taking mean values of the measured temperature distribution across the tube section. The tests were made in a circulatory system where all the parts in contact with molten sodium were made of stainless steel

Card 1/4

88237

S/096/61/000/003/008/C12

E194/E155

Heat Transfer to Sodium in the Region of Low Values of Peclet Number

grade 1K18H9T (1KH18N9T). The experimental sections were made of copper tube of 28 mm internal diameter with a wall thickness of 4 mm. There were two experimental sections differing in the number and arrangement of thermocouples. The experimental section was heated by an electric heater wound round the outer surface of the tube and heat loss to the surrounding medium was calculated. The experimental section was vertical with flow of sodium from bottom to top. The sodium circuit was maintained under an excess pressure of argon. Measurements were made of the e m f s of the thermocouples, the heat supply to the heater, the flow of sodium and the temperature and temperature distribution in the sodium flow. For each condition graphs were constructed of the temperature distribution of the wall along the experimental section of the tube a typical graph is shown in Fig 3. The experimental procedure and the formulae used in working out the results are described and discussed. The value of the correction of the sodium temperature due to axial heat leakage when $Pe = 18$ is

Card 2/4

88237

S/096/61/000/003/008/012

E194/E155

Heat Transfer to Sodium in the Region of Low Values of Peclet's Number

1.3° and if this were not allowed for it would reduce the heat-transfer coefficient by 24%. The heat loading on the experimental tube was 65 000 to 72 000 kcal/m² hour, and the rate of flow of sodium ranged from 0.05 to 0.87 m/sec, corresponding to a range of Reynolds numbers between 2400 and 64 000. The temperature difference between the tube walls and the flow of sodium ranged from 4.8 to 2.6 °C. The experimental data are plotted along with those of several other authors, and it is concluded that when Pe is between 18 and 400 the majority of experimental points lie within $\pm 15\%$ of a line corresponding to the Martinelli—Layon equation

$$Nu = 7 + 0.025 (\epsilon Pe)^{0.8} \quad \text{where } \epsilon = 1.$$

The experimental values are in excellent agreement with the author's previous work (Ref.4). In the range of $Pe > 100$ they also agree with those of Kirillov et al. (Ref.5). The values of certain other authors are too low, for reasons already explained.

There are 5 figures and 8 references: 7 Soviet and 1 English.

Card 3/4

89237

S/096/61/000/003/008/012
E194/E155

Heat Transfer to Sodium in the Region of Low Values of Peclet's Number

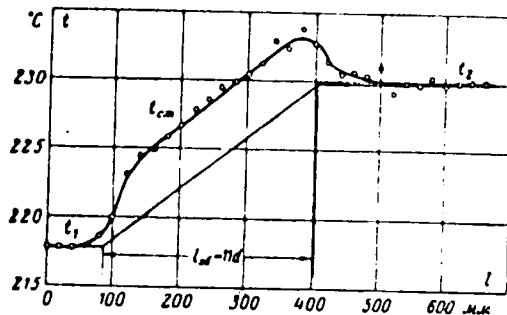


Fig.3

Рис. 3 Распределение температуры стенки на экспериментальном участке (точками отмечены показания термомпар на стенке трубы).

ASSOCIATION: Vsesoyuznyy teplotekhnicheskiy institut
(All-Union Heat Engineering Institute)

Card 4/4

KUTATELADZE, Samson Semenovich; KRISHANSKIY, Veniamin Mironovich;
MOCHAN, S.I., RUS.; ARMAND, A.A., retsenezent; BERMAN, L.D.,
retsenezent; DOROSHCHUK, V.Ye., retsenezent; LEBEDEV, V.S.,
retsenezent; PIROGOV, M.S., retsenezent; RYKIN, S.A., retsenezent;
SOKOLOV, Ya.Yev., ~~retsenezent~~; ZABRODINA, A.A., tekhn.red.;
LARIONOV, G.Ye., tekhn.red.

[Handbook on heat transmission] Spravochnik po teplotoperecheniyam.
Leningrad, Gos. energ. izd-vo, 1963. 16 p. (MIRA 17:1)
(Heat--Transmission)

PIROGOV, M.S., insh.

Heat transfer to sodium in the region of low Peclet numbers.
Teploenergetika 8 no.3:62-64 Mr '61. (MIRA 14:9)

1. Vsesoyuznyy teplotekhnicheskiy institut.
(Sodium) (Heat--Transmission)

PIROGOV, N.

Exchange of experience is a guarantee of success. Obshchestv.
pit. no.2:4-5 P '58. (MIRA 11:3)

1. Direktor stolovoy No.174 tresta stolovykh Kirovskogo rayona
g. Moskvyy. (Erivan--Restaurants, lunchrooms, etc.)

PIROGOV, N.

Костнопластическое Удобрение Костел-Гранд и Поликарнат-Стар

7. 11. 50

SO: Four Continent Bank List, April 1964

FIR 0. 0. 0.

For:

...and the fact that the *Journal* is a journal of the American Psychological Association, which is a professional organization of psychologists, is a factor in the decision to publish the article.

SECRET

CONFIDENTIAL

PROPERTY OF THE CENTRAL INTELLIGENCE AGENCY

1. The following information was obtained from a source who has provided reliable information in the past.

PIROGOV, N. D.

PIROGOV, N.D.; ZHELEZOVSKAYA, M.V.; BILINSKIY, M.Ya., redaktor; SOKOLOVA, N.A., redaktor; KRYNOCHKINA, K.V., tekhnicheskiy redaktor.

[Brick stove mason] Kamenshchik-pechnik. Moskva, Trudreservisdat.
1953. 259 p. (MLRA 7:7)
(Masonry) (Stoves, Earthenware)

PIROGOV, N. D.

Brick stove mason; text book Moscow, in preparation, 1941. 40 p. 11 cm.

TH1197.5

1. Masonry. 2. Stoves, brick. 3. Ceramics. 4. Zhelizovskaya, R.V.

GURVICH, Abram Osipovich; PIROGOV, N.D., inzhener, redaktor; KRYUGER,
Yu.V., redaktor; MEDVEDEV, L.Ya., tekhnicheskii redaktor.

[Carpentry and preparation of cement molds] Plotnichno-opalubochnye
raboty. Izd. 2-oe, perer. i dop. Moskva, Gos. izd-vo lit-ry po
stroit. i arkhitekture, 1956. 383 p. (MLRA 9:4)
(Carpentry) (Concrete construction--Formwork)

PIROGOV, Nikolay Dmitriyevich; KOVALENVSKIY, Ivan Ivanovich; BILINSKIY, M.Ya.,
redaktor; KUZ'MIN, D.G., tekhnicheskiiy redaktor

[Masonry and bricklaying] Kamennye i pechnye raboty. Moskva, Vses.
uchebno-pedagog. izd-vo Trudrezervizdat, 1956. 295 p. (MLRA 9:12)
(Masonry) (Bricklaying)

BUTOMA, B.Ye.; SOKOLOV, P.A.; BALAYEV, D.N.; SERGEYEV, N.M.; SHUMSKIY, K.A.;
 TYAPKIN, M.Ya.; SMIRNOV, V.A.; PIROGOV, N.I.; FEDOROV, N.A.;
 GOLYASHKIN, G.S.; KUZ'MIN, A.P.; AKULINICHEV, V.P. brigadir; GORBENKO,
 Ye.M.; BYSTREVSKIY, L.M., inzh.; STEPANOV, P.S., brigadir; Ua, I.S.,
 brigadir-sudostroyshchik, deputat Vserossiyskogo Soveta SSSR; USTINOV,
 P.D., slesar'-sbornichik; FINOGENOVA, N.Ya., tokar'; LERNER, M.;
 ALEKSEYEV, R.Ye.; SIVUKHIN, K., starshiy master; OSTAF'YEV, A.I.;
 TROFIMOV, B.A., inzh.; KOVRYZHKIN, V.F., inzh.; MOISEYEV, A.A., prof.;
 GOLUBEV, N.V.; MOGILEVICH, V.I.; ANDRYUTIN, V.I.; ANDRIYEVSKIY, M.I.;
 MATSKEVICH, V.D., dots.

Shipbuilders prepare for the 21st Extraordinary Congress of the CPSU.
 Sudostroyeniye 25 no.1:1-25 Ja '59. (MIRA 12:3)

1. Predsedatel' Gosudarstvennogo komiteta Soveta Ministrov SSSR po sudostroyeniyu, ministr SSSR (for Butoma). 2. Nachal'nik upravleniya sudostroyitel'noy promyshlennosti Leningradskoy oblasti (for Sokolov).
3. Direktor Baltiyskogo sudostroyitel'nogo zavoda im. S.Ordzhonikidze (for Balayev). 4. Nachal'nik tsakhov Baltiyskogo sudostroyitel'nogo zavoda im. S. Ordzhonikidze (for Sergeyev, Shumskiy). 5. Nachal'nik mekhanicheskogo tsakha Baltiyskogo sudostroyitel'nogo zavoda im. S. Ordzhonikidze (for Tyapkin). (Continued on next card)

BUTOMA, B.Ye.---(continued) Card 2.

6. Brigada kommunisticheskogo truda Baltiyskogo sudostroitel'nogo zavoda im. S. Ordzhonikidze (for Smirnov).
7. Glavnyy inzhener Admiralty- skogo sudostroitel'nogo zavoda, Leningrad (for Pirogov).
8. Glavnyy inzhener sudostroitel'nogo zavoda im. A.A. Zhdanova (for Fedorov).
9. Nachal'nik elektrodного tsakha Sudostroitel'nogo zavoda im. A.A. Zhdanova (for Golyashkin).
10. Nachal'nik tsakha kommunisticheskogo truda sudostroitel'nogo zavoda im. A.A. Zhdanova (for Kus'min).
11. Malyarnyy tsakh sudostroitel'nogo zavoda im. A.A. Zhdanova (for Akulinichev).
12. Glavnyy inzhener Nikolayevskogo sudostroitel'nogo zavoda im. I.I. Nosenko (for Gorbenko).
13. Nikolayevskiy sudostroitel'nyy zavod im. I.I. Nosenko (for Bystrevskiy, Us, Ustinov, Pinogenova).
14. Slesarno-sbornaya brigada Nikolayevskogo sudostroitel'nogo zavoda im. I.I. Nosenko (for Stepanov).
15. Zamestitel'nachal'nika konstruktorskogo byuro sudostroitel'nogo zavoda "Krasnoye Sormovo" (for Lerner).
16. Glavnyy konstruktor konstruktorskogo byuro sudostroitel'nogo zavoda "Krasnoye Sormovo" (for Alekseyev).
17. Sudostroitel'nyy zavod "Krasnoye Sormovo" (for Sivukhin).
18. Direktor sudostroitel'nogo zavoda "Leninskaya kuznitsa" (for Ostaf'yev).
19. Sekretar' partkoma Tsentral'nogo nauchno-issledovatel'skogo instituta (for Trofimov).

(Continued on next card)

BUTOMA, B.Ye.--(continued) Card 3.

20. Predsedatel' Leningradskogo oblastnogo pravleniya Nauchno-tekhnicheskogo otdela sudostroitel'noy promyshlennosti (for Moiseyev). 21. Glavnyye inzheneri Konstruktorskogo byuro (for Golubev, Andryutin). 22. Glavnyy konstruktor Konstruktorskogo byuro (for Mogilevich). 23. Nachal'nik Tsentral'nogo tekhniko-konstruktorskogo byuro (for Andriyevskiy). 24. Zamestitel' direktora Leningradskogo korablastroitel'nogo instituta po uchebnoy chasti (for Matekevich).
(Shipbuilding)

POLAND/Nuclear Physics - Nuclear Reactions

Abs Jour : Ref Zhur - Fizika, No 5, 1958, No 10292

Author : Wilhelmi, Z., Pirogov, M.I.

Inst : Not Given

Title : The $^{121}\text{Sb} (w,p)^{121}\text{Sn}$ Reaction

Orig Pub : Bull. Acad. polon. sci., 1957, 31, 4, No 4, 401-405, XXXI

Abstract : The authors have measured the ratios of the cross sections of the reactions $\text{Sb}^{121} (n,p)\text{Sn}^{121}$ and the $\text{Fe}^{56} (n,p)\text{Mg}^{56}$. Use was made of neutrons from the reaction $\text{Br}^2(1,a)\text{B}^{10}$, which have a continuous spectrum with a maximum energy of 14.8 Mev. Irradiation of Sb and Fe was simultaneous under identical conditions. The tin was separated from the irradiated antimony chemically. The losses of tin in the separation were determined by the activation method. The ratio of the cross sections, which was found to be 0.040 ± 0.010 , is in agreement with the value of the ratio calculated on the basis of the statistical theory of nuclear reactions, which equals 0.050.

Card : 1/1

MOLCHANOVA, O.P., prof.; LOBANOV, D.I., prof.; MARSHAK, M.S., prof.;
 GANETSKIY, I.D.; BEREZIN, N.I., laureat Stalinskoy premii;
 KOZNIKOV, A.G., laureat Stalinskoy premii; LIPSHITS, M.O.;
 METLITSKIY, L.V., doktor sel'skokhoz.nauk; NAMESTNIKOV, A.F.,
 kand.tekhn.nauk. Prinimali uchastiye: ANAN'YEV, A.A.; GROZNOV,
 S.R.; YEFIMOV, V.P.; KIKNADZE, N.S.; NIKASHIN, P.P.; PIROGOV,
 N.M.; SKRIPKIN, O.M.; TSYPLENKOV, N.P. SIVOLAP, I.K., red.:
 SKURIKHIN, M.A., red.: BETSOFFEN, Ya.I., red.; DAMASKINA, G.B.,
 red.; PRITYKINA, L.A., red.; KISINA, Ya.I., tekhn.red.

[Book on tasty and healthy food] Kniga o vkusnoi i zdorovoi
 pishche. Moskva, Pishchepromizdat, 1961. 423 p.

(MIRA 15:2)

1. Chlen-korrespondent AMN SSSR (for Molchanova).
 (Cookery)

PIROGOV, N. M.

ESSONOV, S.M.; GALKINA, A.F.; KOCHETKOVA, Z.V.; MATSKO, S.N.; PIROGOV, N.M.

Use of vitamin-enriched fats to increase the vitamin content of food
served at public eating establishments. Vop.pit. 13 no.5:22-24 S-0 '54.
(Vitamins) (Food, Enriched) (MLRA 7:9)

PIROGOV, N.N., starshiy tekhnik-leytenant

In 5 minutes instead of 40. Vest. Vozd. Fl. no.10-82
'61. (MIRA 15:2
(Airplanes--Maintenance and repair)

ACCESSION NR: APh037293

S/0190/64/006/005/0962/0963

AUTHORS: Zharov, A. A.; Kissin, Yu. V.; Pirogov, O. N.; Yanikolopyan, N. S.

TITLE: Radical stereospecific high pressure polymerization of propylene

SOURCE: Vy*sokomolekulyarny*ye soyedineniya, v. 6, no. 5, 1964, 962-963

TOPIC TAGS: propylene polymerization, high pressure polymerization, radical stereospecific polymerization, isotactic propylene polymer

ABSTRACT: Isotactic polypropylene was obtained by radical polymerization of propylene at 7000 atmospheres pressure and at temperatures of 100 or 200C. The polymerization of propylene occurs in the presence of such initiators as azobutyronitrile, benzoyl peroxide, and tert.butylperoxide (as well as without them). The molecular weight of the polymer obtained at 200C in the presence of benzoyl peroxide was 900. Infrared spectroscopy showed that the polymer was in a state of isotactic configuration. This was confirmed by x-ray photographs. The polypropylene obtained by radical polymerization at 200C was 45-49% isotactic, while the one obtained at 100C was 54-56% isotactic. The degree of crystallinity

Card 1/2

ACCESSION NR: AP4037293

of the polymer was 13%. Orig. art. has 1 equation.

ASSOCIATION: none

SUBMITTED: 19Nov63

DATE ACQ: 09Jun64

ENCL: 00

SUB CODE: MT, OC

NO REF SOV: 002

OTHER: 003

Cord 2/2

PIROGOV, O.N.; KISSIN, Yu.V.; SHIRKOV, N.M.

Synthesis and the kinetics of the formation of low-molecular weight α -olefins on complex organometallic catalysts. Part 1. *Chem. Abstr.* 1963, 56:633-638. My 1963.

.. Institut Khimicheskoy Fiziki AN SSSR.

RASPOPOV, L.N.; PIROGOV, O.N.; CHIRKOV, N.M.; LISITSYN, D.M.

Mechanical properties of -polyolefins. Part 1: Dependence
of the mechanical properties of polypropylene on its molecu-
lar weight and fractional composition. Vysokom. soed. 5
no.12:1761-1764 D '63. (MIRA 17:1)

1. Institut khimicheskoy fiziki AN SSSR.

TSVETKOVA, V.I.; PIROGOV, O.N.; LISITSYN, D.M.; CHIRKOV, N.M.

Kinetics and mechanism of olefin polymerization on complex catalysts.
Part 1: Kinetic equations and determination of the rate constants
for the polymerization of α -olefins on the system $TiCl_3 - AlR_3$ when
different methods of accomplishing the process are employed. Vysokom.
soed. 3 no.4:585-593 Ap '61. (MIRA 14:4)

1. Institut khimicheskoy fiziki AN SSSR.
(Olefins) (Polymerization)

L 13543-63

ACCESSION NR: AP3000685

EMP(j)/EIP(c)/EWT(m)/BDS

ASD

Pc-1/Pr-1

RM/WW

8/0190/63/005/005/0633, 638

AUTHOR: Pirogov, O. N.; Kissin, Yu. V.; Chirkov, N. M.

TITLE: Synthesis and formation kinetics of low molecular poly-alpha-olefins on complex organometallic catalysts. 1. Polymerization of propylene in the presence of the catalytic system TiCl sub 4 and Al(iso-C sub 4 H sub 9)

SOURCE: Vysshemolekulyarnyye soyedineniya, v. 5, no. 5, 1963, 633-638

TOPIC TAGS: synthesis, formation kinetics, poly-alpha-olefins, polymerization of propylene, catalytic systems

ABSTRACT: The present work was carried out to supply missing information on the polymerization kinetics of propylene over the systems Al(iso-C sub 4 H sub 9) sub 2 Cl and TiCl sub 4. Polymerization was conducted in high pressure installations at 34.8 to 17 atm and a temperature range of 60 to 100C, using liquid propane-propylene mixtures. Liquid polymers were obtained with a degree of polymerization ranging from 3 to 7 and higher. Their molecular weights depended on the temperature of polymerization and the Al:Ti ratio. Spectroscopic examination proved the polymers to be 100% olefins, with an approximate 5:1 ratio of the groups CH sub 2 = C(R) sub 2 and HEC = C(R) sub 2. A small amount of vinyl double bonds was also detected. The mechanism of double bond formation is discussed. Orig. art. has: Card 1/2 Association: Inst. of Chemical Physics, Academy of Sciences

PIROGOV, P., kand. ekon. nauk

Developing the forms of agricultural procurements. Sov. torg.
no. 2:53-56 P '59. (MIRA 12:2)
(Produce trade)

PIROGOV, P., kand.ekonom.nauk

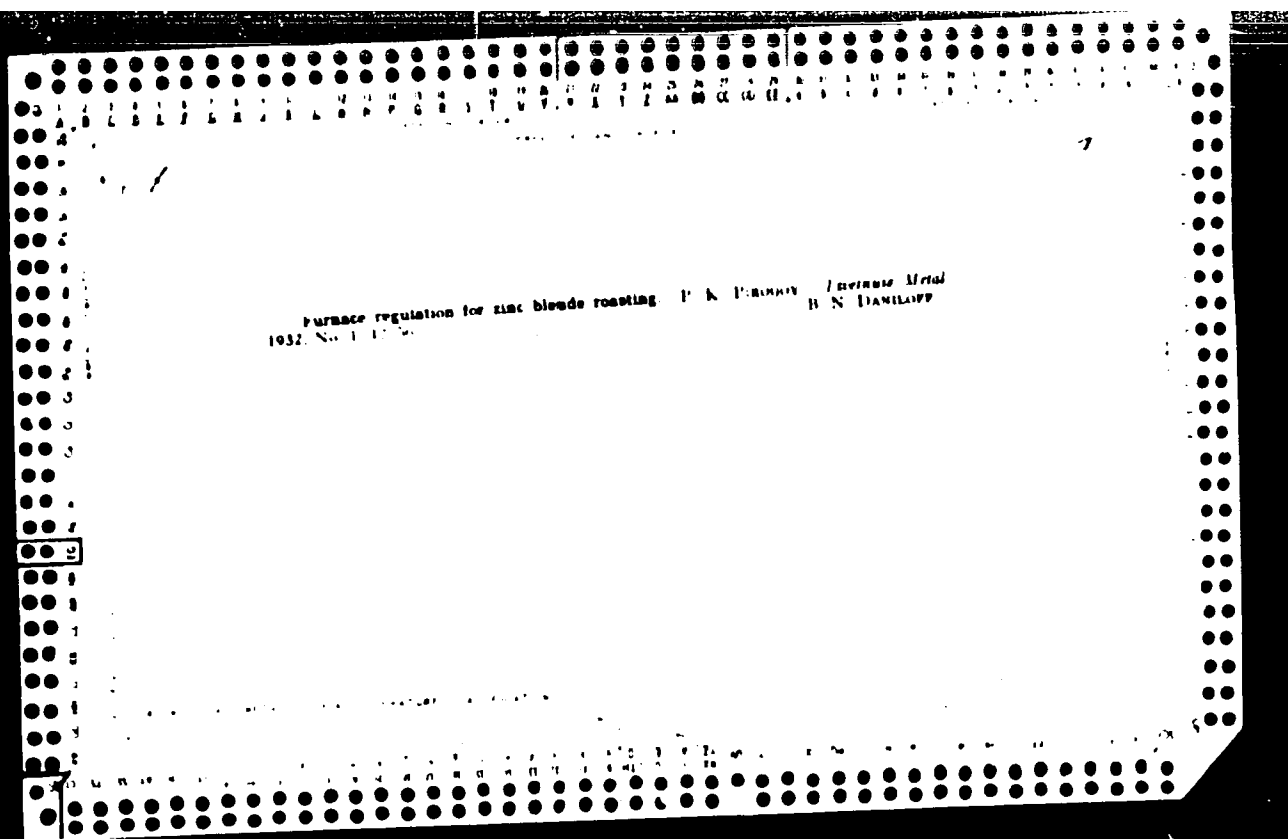
Let's improve the planning of procurement and the use of
vegetables. Sov.torg. 35 no.7:3-6 J1 '62. (MIRA 15:11)
(Vegetable trade)

PIROGOV, Petr Petrovich; ARKHAROVA, V.G., red.; TIKHONOVA, I.M.,
tekhn. red.

[A great exploit is continued; the glorious deeds of sappers
of the Leningrad Military District] Podvig prodolzhaetsia; o
slavnykh delakh saperov Leningradskogo voennogo okruga.
Leningrad, Lenizdat, 1962. 70 p. (MIRA 15:9)
(Leningrad--Bomb reconnaissance)

11367 Who I Escaped: The Story of Peter Plengov, 110
pages, 1950 (Duell, Sloan and Pearce, New York) (Translated
from the Russian) (HC 311, PWOW)

The personal history of an officer in the Soviet Air Force who
after long deliberation decided to fly away to a strange land
giving up the girl he loved. He is a fairly young man, so has
never experienced other than the Bolshevik regime. As a flyer
he had been quite successful in adjusting to Soviet conditions
yet his resentment at the things he observed and experienced
gradually built up to the breaking point especially when the
end of the war brought no improvement.



GRIGOR'YAN, G.S., prof.; KISTANOV, Ya.A., prof.; FEFILOV, A.I., dots.;
GENKINA, L.S., dots.; VASIL'YEV, S.S., dots.; SEREBRYAKOV, S.V.,
prof.; DNEPROVSKIY, S.P., prof.; FLADOGOV, P.V., dots.; GOGOL',
B.I., doktor ekon. nauk; SOTRINA, N.A., dots.; KULIKOV, A.G.,
prof.; KUZIN, N.I., dots.[deceased]; AVETISYAN, Ye., red.;
MUKHIN, Yu., tekhn. red.

[Economics of Soviet trade] Ekonomika sovetskoi trgovli;
uchebnik. 2., dop. izd. Moskva, Politizdat, 1963. 519 p.
(MIRA 16:12)

(Russia--Commerce)

GRIGOR'YAN, G.S. [Hryhor'ian, H.S.], dots., KISTANOV, Ya.A., dots.;
 FEFILOV, A.I., dots., GENKINA, L.S. [Henkina, L.S.], dots.;
 VASIL'YEV, S.S. [Vasil'iev, S.S.], dots., SEREBRYAKOV, S.V.,
 prof.; DNEPROVSKIY, S.P. [Dnieprovs'kiy, S.P.], prof.;
 PIROGOV, P.V. [Pyrokov, P.V.], dots., GOGOL', B.I. [Hohol', B.I.],
 dots.; SMOTRINA, N.A., dots., KULIKOV, O.G. [Kulikov, O.H.],
 dots.; KUZIN, M.I., dots.; DEMIDYUK, V.F. [Damydiuk, V.F.], red.;
 SKVIRSKAYA, M.P. [Skvyrs'ka, M.P.], red., LEVCHENKO, O.K., tekhn.
 red.; SERGEYEV, V.F. [Serhieiev, V.F.], tekhn. red

[Soviet trade economics] Ekonomika radians'koi torhivli; pid-
 ruchnyk. [By] G.S.Grigor'ian ta inshi. Kyiv, Derzhpe'itvydav
 URSR, 1962 500 p. (Mik. 16:11)

(Russia--Commerce)

GRIGOR'YAN, G.V., dots.; KISTANOV, Ya.A., dots.; FEFILOV, A.I., dots.;
GENKINA, L.S., dots.; VASIL'YEV, S.S., dots.; SEREBRYAKOV, S.V.,
prof.; DNEPROVSKIY S.P., prof.; PIROGOV, P.V., dots.; GOGOL',
B.I., dots.; SMOTRINA, NA., dots.; KULIKOV, A.G., dots.; KUZIN,
N.I., dots.; AVETISYAN, Ye., red.; MUKHIN, Yu., tekhn. red.

[Economics of Soviet commerce; textbook] Ekonomika sovetskoi trgov-
li; uchebnik. Moskva, Gospolitizdat, 1962. 527 p. (MIA 15:6)

1. Moskovskiy institut narodnogo khozyaystva im. G.V.Plekhanova
(for Grigor'yan, Kistanov, Fefilov, Genkina, Vasil'yev, Sere-
bryakov, Dneprovskiy, Pirogov, Gogol', Smotrina, Kulikov, Kuzin).
(Russia--Commerce)

VASIL'YEV, S.S., dots.. MENKHA, L.S., dots.. GRIGOR'YAN, G.S., dots..
KISTANOV, Ya.A., dots.. KULIKOV, A.G., dots.. LIFITS, M.F.,
prof. [deceased], OBLOVATSKIY, F.Ya., dots.. PIKOCOV, F.V., dots..
POPOV, A.I., dots.. SICHINA, N.A., dots.. FEFILOV, A.I.,
STARCHAKOVA, I.I., red.. EL'KINA, E.F., tekhn. red.

[Economics of commerce] Ekonomika torgovli. red. kollegiya;
Vasil'ev, S.S., Grigor'yan, G.S., Fefilov, A.I. Moskva, Gos-
torgizdat, 1962. 171 p. (EIRA 171)
(Commerce)

SEREBRYAKOV, S.V., prof., doktor ekonom.nauk; GOGOL', B.I., dotsent;
LIFITS, M.M., prof.; FEFILOV, A.I., dotsent; KISTANOV, Ya.A.,
dotsent; GENKINA, L.S., dotsent; VASIL'YEV, S.S., dotsent;
DNEPROVSKIY, S.P., prof.; PIROGOV, P.V., dotsent; SMOTRINA, N.A.,
dotsent; KULIKOV, A.G., dotsent; KOZIN, N.I., dotsent; PISKUNOV, V.
red.; . MUKHIN, Yu., tekhn.red.

[Economics of Soviet commerce] Ekonomika sovetskoi trgovli;
uchebnoe posobie. Moskva, Gos.izd-vo polit.lit-ry, 1959. 478 p.
(MIRA 12:12)

(Russia--Commerce)

PIROGOV, V.

Methods for constructing a statistical model of a semi-conductor rectifier. Izv. AN Latv. SSR no.5:57-64 '63.
(MIRA 17:1)

1. Institut elektroniki i vychislitel'noy tekhniki AN Latvyskoy SSR.

BARANOV, A.A.; GRECHNYY, Ya.V.; Primalni uchastiye: MOVCHAN, V., student;
NEBORAK, P., student; PIROGOV, V., student

Coalescence of graphite. Lit. proizv. no. 5:25-28 My '62. (MIRA 16:3)
(Cast iron—Metallurgy)

S/197/63/000/002/003/005
B104/B186

AUTHOR: Pirogov, V.

TITLE: An analysis of the operation of the semiconductor rectifier of an electric alternating current railroad motor car

PERIODICAL: Akademiya nauk Latvyskoy SSR. Izvestiya, no. 2 (187), 1963, 54-62

TEXT: The characteristics of a semiconductor connected to the power circuit of an electric railroad motor car are analyzed taking into account different failures in operation. The sequence of the states of the system is investigated by reference to a series of structure models into which the system is dismembered. The members are interacting converters the interaction of which is realized by failure and controlling effects. This method makes it possible to take account of operational failures arising under real working conditions. The study of the effects is considerably simplified if the system is represented in the form of the network defined and of probability automata. Analog Card 1/2

An analysis of the operation of the ...

S/197/63/000/002/003/005
B104/B186

computers may be used to represent the failures in the form of simple state alternation of the rectifier in time. The random losses during operation may be determined by this method; this is advantageous for designing optimum rectifiers of a-c train motor cars. There are 2 figures.

ASSOCIATION: Institut elektroniki i vychislitel'noy tekhniki AN Latv.
SSR
(Institute of Electronics and Computer Engineering AS LatSSR)

SUBMITTED: November 21, 1962

Card 2/2

PIROGOV, V.

Analysis of the operation of a semiconductor electric rectifier
of an a.c.train. Izv.AN Latv.SSR no.2:54-62 '63. (MIRA 16:4)

1. Institut elektroniki i vychislitel'noy tekhniki AN
Latviyskoy SSR.
(Electric railroads) (Electric current rectifiers)

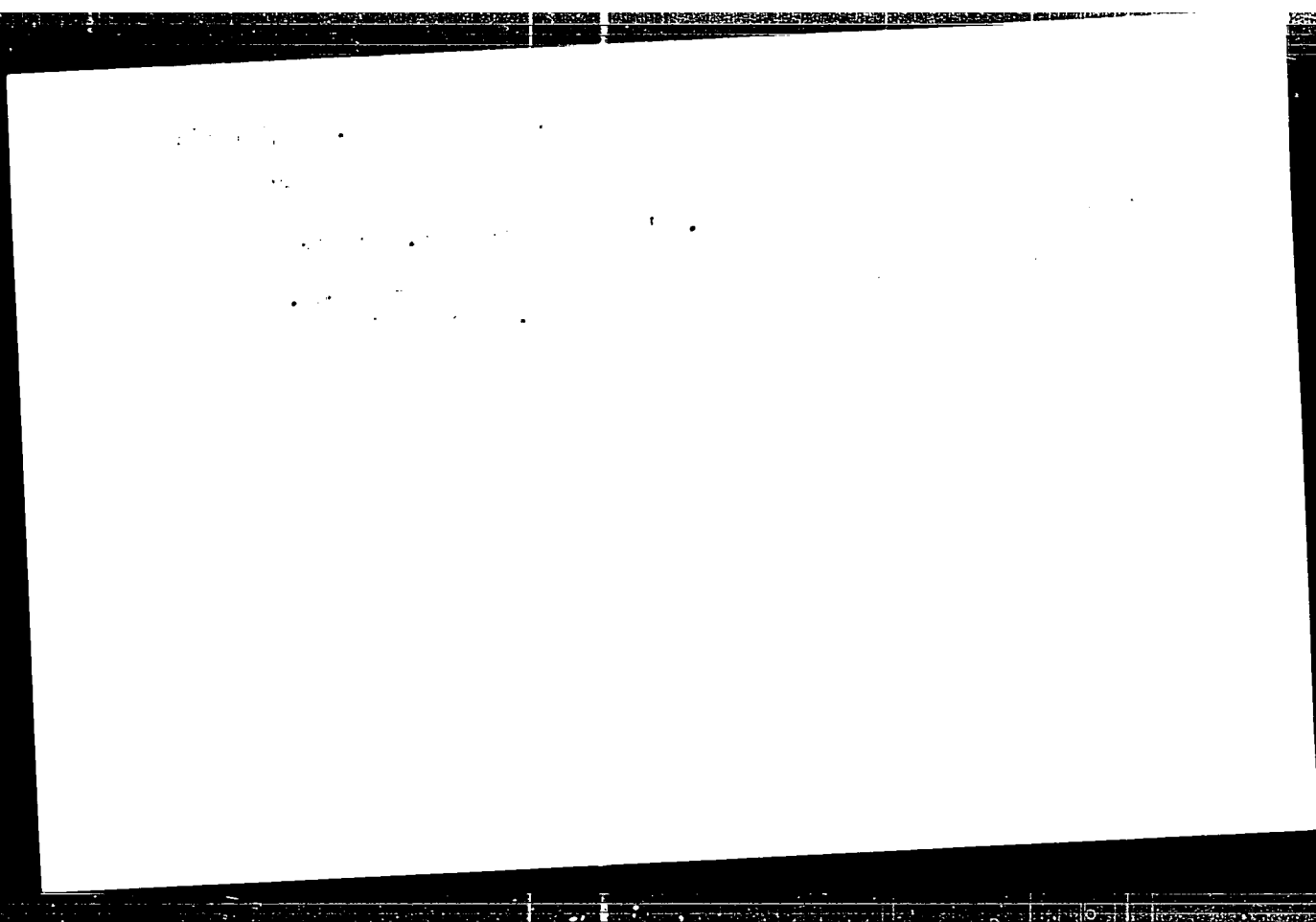
PIROGOV, V.

Automatic detection of overheating in axle bearings of railroad cars.
Vestis Latv ak no.9:51-56 '61.

1. Akademiya nauk Latvyskoy SSR, Institut elektroniki i vychislitel'noy
tekhniki.

"APPROVED FOR RELEASE: 07/13/2001

CIA-RDP86-00513R001341010016-4



APPROVED FOR RELEASE: 07/13/2001

CIA-RDP86-00513R001341010016-4"

SKLYAR, V.K., otstent; PIROGOV, V.A.

Use of the thermoelectric method in the diagnosis of diseases
of the urinary organs. Vrach. delo no.9:147-148. S'00.
MIRA 16:10)

1. Kurs urologii pri kafedre fakul'tetskoy khirurgii (zav. -
prof. I.N. Ishchenko) i kafedra normal'noy fiziologii (zav. -
prof. N.I. Putilin) Kiyevskogo meditsinskogo instituta.
(BODY TEMPERATURE) URINARY ORGANS — DISEASES)

PIROGOV, V.I. [Pyrokov, B.I.]

Chemical characteristics of siderite-magnetite in the southern
part of the Krivoy Rog Basin. Geol. zhur. 24 no.4.75-80 '64.
MIRA 1812

1. Yuzhnyy gornobogatitel'nyy kombinat.

DENISOV, V.I.; KRUTEL', A.T.; PODLESSKAYA, Ye.M.; BREDIKHINA, A.M.;
SUCHALKINA, Z.P.; VERESHCHAGINA, N.M.; DENISOVA, T.F.;
PIROGOV, V.I., red.; KUZIN, N., tekhn.red.

[Economy of Belgorod Province; a statistical manual] Narodnoe
khoziaistvo Belgorodskoi oblasti; statisticheskii sbornik. Orel,
Gosstatizdat, 1959. 253 p. (MIRA 13:6)

1. Belgorodskaya oblast'. Statisticheskoye upravleniye. 2. Na-
chal'nik Statisticheskogo upravleniya Belgorodskoy oblasti (for
Pirogov).

(Belgorod Province--Statistics)

PIROGOV, V. G., inzh.

Testing ~~microbarometers~~ with a combination microscope and
micrometer. Izv. vys. ucheb. zav.; gor. zhur. 5 no.8:66-67
'62. (MIRA 15:10)

1. Universitet Druzhby Narodov imeni Patrisa Lumumby. Rekomendo-
vana kafedroy geodezii.

(Aneroid barometer—Testing)

PIROGOV, V.G.

Nomogram for calculating excesses in barometric leveling. Geod.
i kart. no.8:37-39 Ag '63. (MIRA 16:9)
(Barometric hypsometry)

S/115/63/000/003/003/010
E194/E455

AUTHOR: Pirogov, V.G.

TITLE: Microbarometers with microscope-micrometer

PERIODICAL: Izmeritel'naya tekhnika, no.3, 1963, 20-23

TEXT: Sensitive barometers for surveying have been described in foreign literature; the American microaltimeter MM-5 of the Paulin system and the German microbarometer Gb5 made by Askania are particularly worthy of mention. They can measure pressure with a standard error of 0.02 to 0.03 mm Hg but they are fairly complicated and difficult to make. The Vsesoyuznyy nauchno-issledovatel'skiy institut geofizicheskikh metodov razvedki (All-Union Scientific Research Institute of Geophysical Surveying Methods) has developed a microbarometer with microscope micrometer (V.G.Pirogov and A.P.Yegorov, Pribor dlya izmereniya davleniya (An instrument for measuring pressure). Avt.svid. no.125397 of April 4, 1959). In this instrument a transparent scale is mounted on an aneroid bellows, displacement being read by a microscope with micrometer eye piece. The bellows is 96 mm diameter, has three beryllium bronze elements and its sensitivity

Card 1/2

S/115/63/000/003/003/010
E194/E455

Microbarometers

is 0.027 mm/mm Hg. The microscope objective has a magnification of X5 and a micrometer eye piece a magnification of X15; the tube length is 80 mm. The scale is calibrated at intervals of 0.2 mm and is 15 mm long, so that pressure changes in the range 500 mm Hg can be measured. Foam plastic 50 mm thick provides heat insulation. A thermometer is provided. The instrument was calibrated for accuracy and zero shift against standard barometers; the procedure used is described and the results given. The difference between the readings of the various instruments did not exceed 0.09 mm Hg and the variations were random. From results of observations over five days, it is considered that the standard error in measuring change of pressure with a single instrument is: ± 0.026 mm Hg; from differences of reading compared with a standard instrument ± 0.022 mm Hg. The method of determining and using the temperature coefficient of the instrument is explained. There are 3 figures and 1 table.

Card 2/2

PIROGOV, V.G.

Microbarometer with a microscope-micrometer. Izv. tekhn. no. 31
20-23 Mr '63. (MIRA 16:4)
(Barometer)

PIROGOW, V.O.

Finding gross errors in the angular measurements of traverse
surveys and transit traverses. Good.1 kart. no.3:34-36 My '56.
(Traverses (Surveying) (MLBA 9:10)

PIROGOV, V.G.

Tachymetric leveling methods. Sbor. st. po geod. no. 9:47-53 '55.
(Stadia measurements) (MLBA 9:6)

1 0
KONDRAT'YEVA, N.P.; PODLESSKAYA, Ye.M.; NOVIKOVA, V.F.; LASUKOV, A.N.;
MURAV'YEVA, M.M.; PRINTS, G.Yu.; KOZHEVNIKOV, F.P.; PIROGOV, V.I.,
red.; POLYAKOVA, K.A., tekhn.red.

[Economy of Belgorod Province; a statistical manual] Narodnoe
khoziaistvo Belgorodskoi oblasti; statisticheskii sbornik. Orel,
Gosstatizdat, 1957. 165 p. (MIRA 11:4)

1. Belgorodskaya oblast'. Statisticheskoye upravleniye. 2. Statisti-
cheskoye upravleniye Belgorodskoy oblasti (for all, except Pirogov,
Polyakova) 3. Nachal'nik Statisticheskogo upravleniya Belgorodskoy
oblasti (for Pirogov)
(Belgorod Province -Economic conditions)

SHIR K. V. 1917.

1. The first part of the document is a letter from the author to the editor of the journal "Soviet Science". The letter is dated 1917 and is addressed to the editor of the journal "Soviet Science". The letter is written in Russian and is signed by the author, Shir K. V. 1917.

KICHIGIN, A.P.; PIROGOV, V.K.; SALTANOV, A.D.; LAZUTKIN, A.G.

Narrow-cut UKO-2 cutter-loader working on the principle of
breaking away coal from the massif. Nauch. trudy KNIUI no.13:
241-243 '64 (MIRA 18:1)

PLANNING

1. The first stage of the planning process is the identification of the problem and the objectives of the study.

2. The second stage is the collection of data and information relevant to the problem.

FEDIN, K.A.; BAYEVSKIY, D.A., doktor istor.nauk; VOLKOV, N.S., doktor istor.nauk; GENKINA, E.B., doktor istor.nauk; KUCHEIN, A.P., doktor istor.nauk; KOSTOMAROV, G.D., prof.; DADYKIN, R.P., kand. istor.nauk; ROGACHEVSKAYA, L.S., kand.istor.nauk; SHABALIN, B.I., kand.istor.nauk; MAMONTOV, I.S.; PIROGOV, V.K., преподаvatel'

Let's write the history of our plants and factories; a letter to the editors. Sov.profsotuz 16 no.7:62-63 Ap '60.

(MIRA 13:4)

1. Sekretar' Soyusa pisateley SSSR (for Fedin). 2. Glavnyy redaktor izd-va "Moskovskiy rabochiy" (for Mamontov).
(Factories)

L 33491-65 EMT(m)/EPF(n)-2/ENG(n)/EWA(d)/EPR/T/E.../EXP(k)/EWP(b)/EWA(c)
 ACCESSION NR: AP5007842 Pf-4/Ps-4/Pu-4 8/0288/64/000/003/0168/0171

IJP(c) JG/JG

AUTHOR: Pirogov, V.K.; Shirokov, Ye. G.

TITLE: X-ray study of tungsten sheets

SOURCE: AN SSSR. Sibirskoye otdeleniye. Izvestiya. Seriya tekhnicheskikh nauk, no. 3, 1964, 168-171

TOPIC TAGS: tungsten sheet, tungsten crystal face, recrystallized tungsten, recrystallized grain orientation, xray diffraction pattern

ABSTRACT: Recently, various branches of electronics have begun to utilize edge-shaped field emitters made of temperature-processed tungsten strips (W.P. Dyke, IRE trans. on mil. electr. vol. Mil-4, no. 1, p. 38, 1960). This processing requires knowledge of the temperature and temporal recrystallization interval. Since the emitting capability of the edge is determined basically by the work functions from various faces of the crystal reaching the surface of the edge, one must determine the indices of these faces. Consequently, the author carried out X-ray studies of cold-worked, 60 μ thick, tungsten sheets (90% reduced). Samples were worked in various directions, and X-ray diagrams were also taken from the face of the untreated sample. Comparative X-ray patterns are shown. Orig. art. has: 3 figures.

Card 1/2

L 35491-65

ACCESSION NR: AP5007842

ASSOCIATION: Institut radiofiziki i elektroniki Sibirskogo otdeleniya AN SSSR,
Novosibirsk (Institute for Radiophysics and Electronics, Siberian Section, AN SSSR)

SUBMITTED: 10Dec63

ENCL: 00

SUB CODE: SS

NO REF SOV: 002

OTHER: 001

Card 2/2

PIROGOV, V.N.

Formation of chronic fibrocavernous pulmonary tuberculosis. Minor forms. Probl. tub. 41 no.3:45-49 '63. (MIA 11:1)

1. Iz Chelyabinskogo gosudarstvennogo protivotuberkuleznogo dispensara No.2.

SAMSONOV, G.V.; KUZNETSOVA, N.P.; PONOMAREVA, R.B.; PIROGOV, V.S.;
SELEZNEVA, A.A.; VAN-L-GUAN [Wang I-kuang]

Additional sorption interaction in the absorption by ion
exchange resins of organic substances containing peptide and
amides groupings. Zhur.fiz.khim. 37 no.2:280-283 F '63.

(Penicillin)	(Ion exchange resins)	(MIRA 16:5)
		(Sorption)

PIROGOV, V.S.

Anatomic features of the roots of babies'-breath in rocky
habitats. Bot. zhur. 46 no.8:1152-1161 Ag '61. (MIRA 15:1
(Roots (Botany)--Ecology)
(Gypsophila)

166T4

PIROGOV, Ya.

HUNGARY/Biology - Agriculture

May 50

"Advance of Democratic Hungary," A. Gershkovich,
Ya. Pirogov "

"Nauka i Zhizn'" No 5, pp 39-42

Dr Mate Imre, biologist, has developed and introduced into practice a new variety of "dry rice." He described results of his successful experiments in the scientific work, "Experiments on the Cultivation of Rice Without Irrigation and Without Flooding of the Soil "

FDD

166T4

PIROGOV, Ye.I., inzh.

Using established formulas in calculating bearing moments of
statically indeterminate girders. Prom. stroi. 38 no.9:60-61
'60. (Girders) (MIRA 13:9)

AKSENOV, Ye.P.; GREBENIKOV, Ye.A.; DEMIN, V.G.; PIROGOV, Ye.N.

Some problems concerning the dynamics of flights to Venus.

Soob. GAISH no.125:12-41 '62.

(Space flight to Venus)

(MIRA 16:3)

ACC NR: AP0029057

(A)

SOURCE CODE: UR/0032/66/032/008/0984/0987

AUTHOR: Sobolev, N. D.; Pirogov, Ye. N.

ORG: Moscow Engineering-Physics Institute (Moskovskiy inzhenerno-fizicheskiy institut)

TITLE: A method for studying damage during thermal fatigue

SOURCE: Zavodskaya laboratoriya, v. 32, no. 8, 1966, 984-987

TOPIC TAGS: thermal fatigue, alloy steel, electric circuit, plastic deformation, fatigue strength, fatigue test / EI847 steel

ABSTRACT: An experimental method was developed for studying cumulative damage during thermal fatigue. Experiments were made on tubular specimens ($d = 12.6/11$ mm) of EI847 steel, water quenched from 1150°C, and thermally cycled between 750 and 200°C. A schematic drawing of the electrical control circuit is given. The plastic strain per cycle ($\Delta\epsilon_p$) was calculated by subtracting the elastic from the total strain. This value was then plotted on a log-log scale as a function of the number of cycles to form visible cracking (N). With increased cycling $\Delta\epsilon_p$ diminished due to strain hardening, however, a linear dependence between $\lg \Delta\epsilon_p$ and $\lg N$ was established by using the method of least squares. Cumulative damage was studied by changing from $\Delta\epsilon_p = 0.48\%$ (II) to

UDC: 620.17

Cord 1/2

ACC NR. AP6029857

$\Delta c_p = 0.715\%$ (I), and from $\Delta c_p = 0.48\%$ (II) to $\Delta c_p = 0.245\%$ (III). Values of $(N_f - n_f)/N_f$ were given as functions of n_i/N_i , where N_i is the thermal fatigue endurance under (II), N_f that under (I) or (III), n_i is the duration of loading in initial cycling, and n_f is the duration of loading to fracture. Values of N_i and N_f were determined from endurance curves constructed according to the least squares method. Calculations of thermal fatigue under different conditions showed a large deviation from the linear cumulative fatigue law. For transitions from II to III, $n_2/N_2 + n_3/N_3 < 1$ for all transition stages; for II to I, $n_2/N_2 + n_1/N_1 > 1$ for all transition stages up to $n_1/N_1 < 0.7$, while at $n_1/N_1 = 0.7$ the sum $\sum n_i/N_i \approx 1$.

The scatter in the fatigue results was greater for the combined cycles. A probability distribution for fracturing was given as a function of $\lg N$, the latter ranging from 2.8 to 3.4, for 1Kh18N9T steel tested at $\Delta c_p = 0.76\%$ for $T_{\max} = 650^\circ\text{C}$ and $T_{\min} = 200^\circ\text{C}$. Orig. art. has: 4 figures, 3 formulas.

SUB CODE: 11,20/

SUBM DATE: none/

ORIG REF: 009/

OTH REF: 003

Card 2/2

S, 131, 60, 000, 011, 001, 002
R021, R05A

AUTHORS

Amerikov, A. V., ~~Pirakov, Yu. A.~~

TITLE:

Manufacture of Corundum Tubes at the Experimental Plant
of the VNIIO

PERIODICAL: Ogneupory, 1960, No. 11, 11, 1960

TEXT: Corundum tubes were made of wet ground commercial alumina fired at 1450°C with a content of 98.8% Al_2O_3 and an addition of 1% titanium dioxide, flour paste serving as plasticizer. Tubes of a length of from 1.5 to 2.0 m were pressed from the mass with a humidity of from 16.7%. After drying, the tubes were fired in a muffle furnace of the type BMMO-120 (VNIIO-120, with electric heating and 2), as suggested by A. S. Perezhnyy. The dependence of compressive strength, porosity and weight by volume on the firing temperature is shown in Fig. 3. The investigation results of the masses from alumina with different content of orthophosphoric acid (H_3PO_4) are tabulated. The dependence of the compressive strength on the firing temperature is shown in Fig. 4. In conclusion, the possibility was ascertained of firing Card 1/2

Manufacture of Corundum Tubes at the
Experimental Plant of the VNIIC

0, 13, 40, 000, 011/011 001
B021 B01A

corundum tubes up to 1.2 m length, using a mass with fluorobonding, and
up to 2.0 m length, using a mass with phosphate bonding, in the Kryptol
furnace in hanging position. P. N. Gorvenko took part in the work.
There are 4 figures, 1 table, and 3 references: 1 Soviet and 2 US.

ASSOCIATION: Ukrainskiy nauchno issledovatel'skiy institut keramicheskikh
"VNIIC" (Ukrainian Scientific Research Institute of Re-
fractory Materials)

Card 2/2

PHASE I BOOK EXPLOITATION

SOV/6333

Bochkarev, V. V., ed.

Tekhnika izmereniye radioaktivnykh preparatov; sbornik statey (Techniques for the Measurement of Radioactive Preparations; Collection of Articles) Moscow, Gosatomizdat, 1962. 4600 copies printed.

Eds.: A. M. Smirnova and M. A. Smirnov; Tech. Ed.: S. M. Popova.

PURPOSE: This book is intended for specialists in nuclear instrumentation.

COVERAGE: The book is a collection of articles on recent developments in 1) measurement of the activity and 2) analysis of the composition of emissions of radioactive preparations. The methodology and apparatus used in these studies are described in detail. References are given at the end of each article.

TABLE OF CONTENTS:

Card 1/1 /

7

Techniques for the Measurement (Cont.)

SOV/6333

Preface

3

Vorob'yev, A. A. Study of α -Emitting Preparations With the Aid
of a Gridded Ionization Chamber 18

Bernotas, V. I., V. A. Gorodyskiy, N. K. Semenova, I. P.
Tupitsyn, and O. A. Filippov. Direct Measurement of the Activity
of Tritiated Compounds 41

Bernotas, V. I., Yu. A. Pirogov, and O. A. Filippov. Measurement
of the Activity of Tritiated Thick Organic Films 51

L'vova, M. A. Experimental Evaluation of the Accuracy of
a Method for Measurement of β -Emitters by Means of End-Window
Counters 56

Turkin, A. D. Measurement of the Activity of β -Sources in 4 π -
Ionization Chambers 63

Card 2/5

9.4130
9.1300

S/100/62/007
D266/D303

AUTHORS:

Kostiynenko, A.I., and Pirogov, Yu.A

TITLE:

Interaction between an electron beam and a higher order waveguide mode in a large planar gap

PERIODICAL:

Radiotekhnika i elektronika, v. 7, no. 3, 1962, pp. 332 - 338

TEXT: The aim of the paper is to analyze the interaction between an electron beam and an H_{11} mode in a rectangular waveguide. The bottom and top plates of the waveguide contain the grids which are at the potential U_1 and U_2 respectively. If sufficient amount of space charge is present the d.c. potential distribution has a minimum somewhere between the grids. Accordingly the d.c. approximate this potential distribution by a parabola

$$u(x) = px^2 - qx + c$$

which means a linear variation in electric intensity. Assuming that
Card 1/4

PIROGOV, Yu.A.

Properties of certain protective coatings applied on metals by
vapor plating. Ogneupory 27 no.10:468-472 '62. (MIRA 15:9)

1. Ukrainskiy nauchno-issledovatel'skiy institut khimicheskogo
mashinostroyeniya.

(Vapor plating)

E 28463-66 EWP(e)/EWT(m) WH/OD/WH

ACC NR: AT5027958

SOURCE CODE: UR/0000/65/000/000/0226/0232

AUTHOR: Bogdanov, A. G.; Pirogov, Ya. A.; Makarev, L. P.

ORG: none

TITLE: Effective heat conductivity and thermal radiation capacity of gas-flame ceramic coatings

SOURCE: Seminar po zharostoykim pokrytiyam. Leningrad, 1964. Zharostoykiye pokrytiya (Heat-resistant coatings); trudy seminarov. Leningrad, Izd-vo Nauka, 1965, 22-232

TOPIC TAGS: ceramic coating, heat conductivity, aluminum compound, niobium compound, magnesium compound, titanium compound, steel, ceramic coating, thermal radiation/ St. 3 steel

ABSTRACT: A study was made of the effective heat conductivity and integral thermal radiation of Al_2O_3 , ZrO_2 , $Al_2O_3 \cdot MgO$, TiO_2 , and $ZrSiO_4$ coatings applied on plate and cylindrical steel St. 3 samples by gas-flame spraying. The thickness, taken as an average of 15-20 measurements made in various parts of the samples, was determined for coatings consisting of 0.6 mm Al_2O_3 , 0.07 mm ZrO_2 , 0.65 mm

Card 1/3

I 28463-66

ACC NR: AT5027958

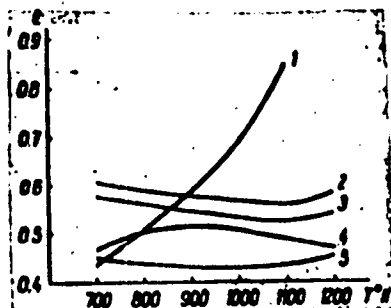
ZrSiO₄, 0.55 mm TiO₂, 0.55 mm Al₂O₃·MgO, and 0.55 mm Cr₂O₃, respectively. The effective heat conductivity of the coatings was measured in a vacuum of 10⁻⁵ mm Hg and in an Ar atmosphere (the heat conductivity of Ar is similar to that of air) at 300-900C and at a pressure of 100 and 300 mm Hg. The values of the heat conductivity coefficient (λ) were plotted in the graphs in λ vs temperature coordinates. The values obtained for λ were, on the average, 5-10 times smaller than those obtained for the same materials tested in the form of massive samples having a porosity of 20-30%. This was caused by the coating structure which formed under specific conditions of the gas-flame method: the layer of sprayed particles was not a homogeneous one, but consisted of irregularly superimposed particles containing numerous pores. A sharp decrease in effective heat conductivity was observed under decreased pressure because of the greater effect of the pores. The radiation heat exchange was predominant in the gas-flame oxide coatings at moderately high temperature (~1000C). Because the thermal contact resistances between the individual grains of the coating controlled the total heat transfer, the values of a specific thermal conductivity of the grains which was different in various materials, had little effect on the thermal conductivity of the samples. This was indicated by the fact that the curves of conductivity changes, plotted from coatings made of Al₂O₃, ZrO₂, Al₂O₃·MgO, TiO₂, and

Card 2/3

L 28463-66

ACG NR: AT5027958

$ZrSiO_4$, had, during measuring in a high vacuum, a heat transfer of the same character and of about the same values inspite of the large differences in the thermal conductivity of these materials. The results of the determination of the integral conductivity of the coatings made from Cr_2O_3 (curve 1), $Al_2O_3 \cdot MgO$ (curve 2), TiO_2 (curve 3), $ZrSiO_4$ (curve 4), and ZrO_2 (curve 5) are given in the attached figure. Orig. art. has: 5 fig. and 1 table.



SUB CODE: 11, 20/SUBM DATE: 20Jul65/ ORIG REF: 002/ OTH REF: 006

Card 3/3 LC

L 17846-66 EWT(m)/EWP(e)/EWP(t) IJP(c) WH/PW/JD/GS

ACC NR: AT5027956

SOURCE CODE: UR/0000/65/000/000/0191/0200

AUTHOR: Svirskiy, L. D.; Pirogov, Ya. A.

ORG: none

TITLE: Formation and properties of high-temperature oxidation-resistant coatings produced by the gas-flame method

SOURCE: ¹⁰ Seminar po sharostoykim pokrytiyam. Leningrad, 1964. Zharostoykiye pokrytiya (Heat-resistant coatings); trudy seminarov. Leningrad, Izd-vo Nauka, 1965, 191-200

TOPIC TAGS: vapor plating, heat resistance, aluminum, zirconium, titanium, chromium, nickel, cobalt, zinc oxide, bending stress, hardness, fabricated structural metal, refractory coating, adhesion

ABSTRACT: A study was made of the effect of formation conditions of coatings, applied with a UR-2 oxyacetylene torch, on the properties of refractory coatings containing Al, Zr, Ti, Cr, Ni, Co, Zn oxides, Ca zirconate, ilmenite, forsterite, and Al-Mg spinel. Rods were made from these materials 3mm in diameter and 300-400 mm long by using water glass as a binder and by subsequent roasting at 1650°C. The average velocity of the molten particles (v) which adhered to the surface of

Card 1/3

L 1784b .36

ACC NR: AT5027956

the coated metal plate was determined by changing the rpm of discs with attached samples and using the formula $V = \pi Dnk/60s$, where D is the diameter of the circle passing through the center of the samples, n is the rpm of the disc, k is the distance from the sample, and s is the displacement of the place of the particle fall on the sample surface during the rotation of the disc measured from the place of the particle fall when the disc is not rotating. The V varied within a large range (50-200 m/sec) and increased with increased air pressure (P), dispersing the melt, and with a decreasing distance of the gun nozzle from the sample (l). The average size of particles (D) forming the coating, increased with increased l because the small-size particles were cooled with increased l, to the degree that they could adhere to the coated surface. The increase of angle (α) of the trajectory of the particles to the coated surface and the increase in air pressure P increased the density of the coating and decreased the loss of refractory material. But the increase of P above 4.5 atm for the coatings made of ZrO_2 and sintered zirconium, resulted in an increase in losses during coating. The optimal conditions were P=4-5 atmospheres, α equal or near 90°, at a minimum rate of rod delivery in the flame and a minimum d which was still sufficiently long to prevent the overheating of the coated metal. A coating made of alumina and sintered corundum had the largest microhardness and bending strength. The values

Card 2/3

L 17846-66

ACC NR: AT5027956

of the modulus of elasticity of the coating were on order smaller than those of sintered materials, whereas the thermal expansion coefficients of the coating were similar to those of sintered materials. The coatings from alumina, forsterite, Cr oxides, CeO_2 , and ZnO had the smallest open porosity. Most 0.4-0.6 mm thick coatings (except CeO_2), applied to a metallized nichrome sublayer (0.2-0.3 mm thick) had relatively good heat resistance. The sublayer of nichrome produced a better adhesion of the coating than the sublayer of molybdenum and stainless steel. Preheating of the substrate to 180-200°C increased the strength of adhesion. Orig. art. has: 7 fig. and 1 table.

SUB CODE: 11/ SUBM DATE: 20Jul65/ ORIG REF: 004/ OTH REF: 004

Card 3/3 ast